

**MPR 8715.1
REVISION D**

**EFFECTIVE DATE: January 17, 2006
EXPIRATION DATE: January 17, 2011**

MARSHALL PROCEDURAL REQUIREMENTS

QD01

MARSHALL SAFETY, HEALTH, AND ENVIRONMENTAL (SHE) PROGRAM

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DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		7/10/00	The MSFC SHE Program describes the MSFC occupational safety, health, and environmental (SHE) program. Emphasis is placed on the industrial safety portion of the SHE Program, but pointers are provided to the health and environmental program documents.
Revision	A	8/23/01	This document has been rewritten in its entirety.
Revision	B	2/20/2004	Improve wording, general update, incorporate new SHE Committee arrangement, align format with OSHA's VPP elements, revise and expand goals and objectives, document requirement for including safety in personnel performance evaluations, clarify how employees are involved in SHE Program, clarify contractor SHE requirements, incorporate new SHetrak and SSWP processes, add organization SHE award program, add organization level self-assessment and SHE employee SHE survey requirements, add annual SHE Program assessment and planning process, add baseline assessment requirements, document mishap awareness process, add work hour limitation guidelines, add disciplinary system, , update building manager rules, and add revised guideline for storage on top of furniture.
Revision	C	10/29/2004	Revised to bring document in compliance with the HQ Rules Review Action (CAITS: 04-DA01-0387). Changes were also made to reflect S&MA organizational name changes (i.e., QS to QD). Revised safety and health goals and objectives.
Revision	D	1/17/2006	Clarify safety training requirements for non-contractor (grants, etc.) type employees. Clarify inspection requirements for offsite facilities. Incorporate changes to the SHE Committee program. Revised policy and objective to match metrics. Relocate Building Manager Program to another document. Revised policy to include support of mission. Added Vision and moved goals to the annual plan. Added requirement for S&MA audits of organizations and SHE programs. Added references and relationships to the new IMSB. Added reference to the new SHE Training Assessment process. Added a commitment statement to the four major elements of the NASA Safety Program. Added requirement for use of cargo containers. Updated numerous references and organizational names. Various clarifications.

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PREFACE

P.1 PURPOSE

To set forth the Marshall Space Flight Center (MSFC) safety, health, and environmental policies, responsibilities, and procedures intended to provide employees with a safe and healthful workplace. To define the implementation of an aggressive Safety, Health, and Environmental (SHE) Program that complies with current applicable Federal, NASA, and MSFC safety, health, and environmental regulations, requirements, and standards.

This Marshall Procedural Requirements (MPR) does not specifically address MSFC's Flight Safety Program. For information concerning that program, refer to the program-level documents (e.g., Space Shuttle Program (SSP) - 50021, "Safety Requirements Document," and NASA Safety Technical Standard (NSTS) 5300.4, "Safety, Reliability, Maintainability, and Quality Provisions for the Space Shuttle Program") or contact the MSFC Safety and Mission Assurance (S&MA) Directorate.

P.2 APPLICABILITY

These procedures and requirements are applicable to:

- a. All persons on MSFC property, including contractors involved in MSFC operations.
- b. All persons involved in MSFC controlled activities either on or offsite.
- c. All vendors, visitors, and personnel allowed access to MSFC.
- d. All ground-based activities conducted by or at MSFC.
- e. All MSFC facilities, systems, equipment, and property.

P.3 AUTHORITY

- a. Public Law 29 U.S.C. § 651 et seq., "Occupational Safety and Health Act of 1970"
- b. Executive Order 12196, dated February 26, 1980, "Occupational Safety and Health Programs for Federal Employees"
- c. 29 CFR 1903, "Inspections, Citations, Proposed Penalties"
- d. 29 CFR 1910, "Occupational Safety and Health Standards"
- e. 29 CFR 1926, "Safety and Health Regulations for Construction"

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- f. 29 CFR Part 1960, “Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters”
- g. 40 CFR, “Environmental Protection”
- h. NPD 8500.1, “NASA Environmental Management”
- i. NPD 8710.2, “NASA Safety and Health Program Policy”
- j. NPR 8621.1, “NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping”
- k. NPR 8715.1, “NASA Safety and Health Handbook Occupational Safety and Health Programs”
- l. NPR 8715.2, “NASA Emergency Preparedness Plan Procedures and Requirements”
- m. NPR 8715.3, “NASA Safety Manual”

P.4 APPLICABLE DOCUMENTS

MSFC complies with all applicable local, State, Federal, and consensus codes and standards.

- a. NPR 1441.1, “NASA Records Retention Schedules” (NRRS)
- b. NPR 7120.5, “NASA Program and Project Management Process and Requirements”
- c. NPR 8831.2, “Facilities Maintenance Management”
- d. MPD 1150.1, Charter MC-12, “MSFC Safety, Health, and Environmental (SHE) Committee”
- e. MPD 1840.1, “MSFC Environmental Health Program”
- f. MPD 1840.2, “MSFC Hearing Conservation Program”
- g. MPD 1840.3, “MSFC Respiratory Protection Program”
- h. MPD 8500.1, “MSFC Environmental Management Policy”
- i. MPR 1040.3, “MSFC Emergency Plan”
- j. MPR 1280.6, “Internal Quality Audits”
- k. MPR 1440.2, “MSFC Records Management Program”

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- l. MPR 1600.1, “MSFC Security Procedural Requirements”
- m. MPR 1800.1, “Bloodborne Pathogens”
- n. MPR 1810.1, “MSFC Occupational Medicine”
- o. MPR 1840.2, “MSFC Hazard Communication Program”
- p. MPR 3410.1, “Training”
- q. MPR 6700.1, “MSFC Vehicle and Motor Pool Operations”
- r. MPR 7900.1, “Aviation Accident Plan”
- s. MPR 8500.1, “MSFC Environmental Management Program”
- t. MWI 1700.3, “NASA Safety Reporting System Corrective Action Process”
- u. MWI 3410.1, “Personnel Certification Program”
- v. MWI 8540.2, “Affirmative Procurement Program for Environmentally Preferable Products”
- w. MWI 8550.1, “Waste Management”
- x. MWI 8550.2, “Storm Water Management”
- y. MWI 8550.3, “Wastewater Compliance”
- z. MWI 8550.4, “Air Emissions Compliance”
- aa. MWI 8550.5, “Hazardous Material Management”
- bb. MWI 8621.1, “Close Call and Mishap Reporting and Investigation Program”
- cc. MWI 8715.1, “Electrical Safety”
- dd. MWI 8715.2, “Lockout/Tagout Program”
- ee. MWI 8715.3, “Hazard Warning Signs and Barricades”
- ff. MWI 8715.4, “Personal Protective Equipment (PPE)”
- gg. MWI 8715.5, “Area/Building Manager Program”

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- hh. MWI 8715.9, “Occupational Safety Requirements for MSFC Contractors”
- ii. MWI 8715.11, “Fire Safety Program”
- jj. MWI 8715.13, “Safety Concerns Reporting System (SCRS)”
- kk. MWI 8715.15, “MSFC Ground Operations Safety Assessment and Risk Mitigation Program”
- ll. MWI 8715.16, “Supervisor Safety Visits”
- mm. Data Requirement Document (DRD) STD/SA-SHP
- nn. Data Requirement Document (DRD) STD/SA-SHEWA
- oo. National Archives and Records Administration (NARA), “General Records Schedule” (GRS)

P.5 REFERENCES

- a. NPD 1800.2, “NASA Occupational Health Program”
- b. MPD 1800.1, “MSFC Smoking Policy”
- c. MPD 1860.1, “Laser Safety”
- d. MPD 1860.2, “Radiation Safety Program”
- e. MPR 1840.1, “MSFC Confined Space Entries”
- f. MPR 1840.3, “MSFC Hazardous Chemicals in Laboratories Protection Program”
- g. MPR 1860.1, “MSFC Radiation Procedural Requirements”
- h. MPR 6410.1, “Handling, Storage, Packaging, Preservation, and Delivery (HSPPD)”
- i. MPR 8823.2, “Pressure Systems Certification Requirements”
- j. MWI 6410.1, “Packaging, Handling, and Moving Program Critical Hardware”
- k. MWI 6430.1, “Lifting Equipment and Operations”
- l. MWI 7900.1, “Management and Operation of MSFC Mission Management Aircraft”

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- m. MWI 8715.1, “Electrical Safety”
- n. MWI 8715.10, “Explosives, Propellant, and Pyrotechnics Program”
- o. National Fire Protection Association (NFPA) National Fire Codes (NFC)
- p. NASA FAR Supplement (NFS) 1823.70, “Safety and Health”
- q. NASA-STD-8719.7, “Facilities System Safety Guidebook”
- r. NASA-STD-8719.9, “Standard for Lifting Devices and Equipment”
- s. NASA-STD-8719.11, “Safety Standard for Fire Protection”
- t. NSS-1740.12, “Safety Standard for Explosives, Propellants, and Pyrotechnics”
- u. NASA-STD-8719.13, “Software Safety”
- v. NSS-1740.16, “Safety Standard for Hydrogen and Hydrogen Systems Guidelines for Hydrogen System Design, Materials selection, Operations, Storage and Transportation”
- w. American National Standards Institute (ANSI) - All Standards as applicable
- x. ASTM-MANL-36, “Manual for Safe Use of Oxygen Systems: Guidelines for Oxygen System Design, Materials Selection, Operations, Storage, and Transportation”
- y. Compressed Gas Association (CGA) – All applicable standards

P.6 CANCELLATION

MPR 8715.1C dated October 29, 2004

*Original signed by
Robin N. Henderson for*

David A. King
Director

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DOCUMENT CONTENT

1. DEFINITIONS

The terms defined below represent the most common safety terms used throughout the safety program. Additional definitions are provided in the applicable safety and health Centerwide instructions (e.g., Marshall Work Instructions (MWIs) and MPRs).

1.1 Area Manager. Individual responsible for a given area of MSFC controlled real property, who assures Building Managers are appointed for buildings in their area.

1.2 Building Manager. Building managers are individuals assigned by and responsible to the respective area manager to assure that their assigned buildings and surrounding areas are safe, healthful, and in compliance with housekeeping rules. This is normally a collateral duty. If possible, the building manager is selected from employees located in the assigned building.

1.3 Building Manager Assistant. Individual assigned responsibility to aid the building manager in assuring that their assigned buildings and surrounding areas are safe, healthful, and in compliance with housekeeping rules.

1.4 Close Call. An occurrence in which there is no injury, no equipment/property damage equal to or greater than \$1,000, and no significant interruption of productive work, but which possesses a high-severity potential for any of the mishaps defined as Types A, B, or C Mishaps, Mission Failure, or Incident.

1.5 Cargo Containers. Storage facilities that include cargo containers (commonly called CONEXs) and semi-trailers with wheels removed. These containers are usually 8' wide x 8' high, and vary in length from 15 to 40 feet.

1.6 Employee. Any person (civil servant or contractor) that works on MSFC controlled property, or any civil servant that works for MSFC at any location.

1.7 Hazard. A condition that could cause injury, illness, or death, or that could result in damage to property or loss of equipment, or impact to the environment.

1.8 Hazard Assessment. The systematic identification and evaluation of existing and potential hazards and the recommended mitigation for the hazard sources found, based on risk assessment.

1.9 Incident Reporting Information System (IRIS). A NASA-wide data base for recording and tracking mishap information.

1.10 Integrated Management Systems Board (IMSB). The IMSB is a management level board with membership consisting of the Center's Associate Director as chairperson and the Center Director's direct reports as members. It is responsible for the management of the Center's

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mission support. This includes ensuring the safety and health of the MSFC organization and its personnel.

1.11 Job Hazard Analysis (JHA). A method or process used to determine hazards associated with a specific job/task and their elimination or control.

1.12 Marshall Team Meeting (MTM). The MTM is a monthly meeting of top-level Center managers and support contractor managers at which SHE metrics, issues, and initiatives, and other Centerwide topics are discussed. The meeting is chaired by the Center Director.

1.13 Mishap. A mishap is an unexpected occurrence, event, or sequence of events that results in injury or death to employees or visitors or damage to NASA equipment or property. See MWI 8621.1, "Close Call and Mishap Reporting and Investigation Program," for detailed definitions of the mishap classifications.

1.14 Occupational Safety and Health Administration (OSHA). The organization established under the US Department of Labor to administer the Occupational Safety and Health Act as documented in Part 29 of the Code of Federal Regulations (CFR).

1.15 Potentially Hazardous Operations or Facilities. Any operation, process, facility, or equipment that has a potential to result in serious injury or death to personnel or damage and/or destruction of property. These operations may involve explosives, propellants, high energy, high pressure, oxidizers, corrosives, high elevations, cryogens, hostile atmosphere, flammables, material handling operations (e.g., crane and forklift operations), high-electrical energy, radiation, noise, hyperbaric or hypobaric environment, toxic material, critical hardware, etc.

1.16 Real Property. Land and anything erected thereon or affixed or appurtenant thereto (e.g., buildings, structures, utility systems, and improvements."

1.17 Risk. As it applies to safety, exposure to the chance of injury or loss. It is a function of the possible frequency of occurrence of an undesired event, the potential severity of resulting consequences, and the uncertainties associated with the frequency and severity.

1.18 Safety Deviation. A request for the departure from a particular safety requirement where the intent of the requirement is being met through alternate means that provides an equal or greater level of safety.

1.19 Shall. The word "shall" indicates that the rule is mandatory. Noncompliance with a "shall" statement requires approval of a variance.

1.20 SHETrak. SHETrak is an MSFC Web-based electronic database maintained by S&MA for documenting and tracking to closure hazards identified in the workplace.

1.21 Should. The word "should" indicates that the rule is a recommendation, the advisability of

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which depends on the facts in each situation. Implementation of a “should” statement is at the discretion of the local officials.

1.22 Supervisor. For the purpose of this document the term supervisor means a company or Government representative whose duties include directing employees and approving employee evaluations.

1.23 Variance. Documented and approved permission to perform some act contrary to established requirements.

1.24 Waiver. A request for the departure from a specific safety requirement where an increased level of risk has been accepted.

2. RESPONSIBILITIES

The NASA Administrator is the senior person responsible for Agencywide safety. NPD 8710.2 establishes the NASA Designated Safety and Health Official (DASHO) pursuant to Executive Order 12196, Section 1-102, to serve as the coordinator of the Occupational Safety and Health Programs.

At MSFC, the final authority and responsibility for safety rests with the Center Director. The Center Director has designated the Director, S&MA, as the Center Safety Official and the Occupational Health Officer as the Center Health Official. Each director and supervisor shall be responsible for the safety of personnel and property under their control, with timely monitoring, surveillance, and support provided by S&MA. Safety responsibilities are listed below. Additional responsibilities concerning specific activities are listed in the related safety, health, and environmental documents.

2.1 The Center Director shall:

2.1.1 Guide and direct the safety program for MSFC.

2.1.2 Establish, publicize, and monitor progress in achieving Center SHE goals and objectives.

2.1.3 Address safety issues/concerns to MSFC employees as needed.

2.1.4 Conduct monthly safety meetings with employees who report directly to them, and assure supervisors at all levels conduct monthly safety meetings with their employees.

2.1.5 Conduct walk-through Safety Visits of activity areas and assure supervisors at all levels conduct Safety Visits of their respective areas in accordance with MWI 8715.16.

2.1.6 Ensure controls for safety issues and concerns are integrated into the total management system.

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2.1.7 Evaluate the safety performance of employees (direct reports) using the performance appraisal process.

2.1.8 Approve Annual SHE Program Plan.

2.1.9 Promote safety by setting a positive example.

2.2 Managers of Program/Project Offices shall:

2.2.1 Develop program/project safety requirements in accordance with NPR 7120.5, “NASA Program and Project Management Processes and Requirements.”

2.2.2 Establish or adopt program/project SHE goals and objectives.

2.2.3 Include safety, health, and environmental requirements in contracts as specified in MWI 8715.9, “Occupational Safety Requirements for MSFC Contractors,” and NFS (e.g., Subpart 1823.70, “Safety and Health”).

2.2.4 Coordinate with technical disciplines to ensure adequate review of program/project safety, health, and environmental-related activities.

2.2.5 Allocate adequate resources and delegate authority to ensure an effective SHE Program for their respective program/project.

2.3 Directorate/Office Directors shall:

2.3.1 Apply the SHE Program to assigned areas of functional responsibility.

2.3.2 Establish organization safety goals and objectives to support achievement of the Center’s SHE goals and objectives.

2.3.3 Conduct monthly safety meetings with employees (direct reports).

2.3.4 Conduct walk-through Safety Visits of work areas within their area of responsibility in accordance with MWI 8715.16, “Supervisor Safety Visits.”

2.3.5 Support the SHE Committee, including providing a designated representative.

2.3.6 Evaluate SHE performance of employees (direct reports) using the performance appraisal system.

2.3.7 Ensure reporting and investigation of mishaps in accordance with MWI 8621.1, “Close Call and Mishap Reporting and Investigation Program.”

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2.3.8 Ensure all personnel, including visitors, contractors, and researchers working in their area of functional responsibility, comply with the requirements of this document.

2.3.9 Ensure that facilities are operated in accordance with all applicable requirements, the intended design, and the requirements of this document, and that the facility's safety integrity is not compromised with non-approved facility additions or modifications.

2.3.10 Ensure actions identified in Annual SHE Program Plan are appropriately implemented within their respective organization.

2.3.11 Promote safety by setting positive example.

2.3.12 Ensure SHE issues and actions in responsible area are worked in a timely manner.

2.4 Department/Office Managers and Group Lead (Supervisor) responsibilities are listed in Appendix A.

2.5 Employee responsibilities are listed in Appendix B.

2.6 Personnel who are not contractors, yet allowed access to MSFC facilities to conduct individual research or other activities under grants or other auspices, shall comply with all the requirements of the MSFC SHE Program, including:

2.6.1 Taking required safety training in accordance with MPR 3410.1, "Training," and as determined by completing the SHE Training Assessment which is available on the MSFC Safety, Health, and Environmental (SHE) Web page.

2.6.2 Submitting a written Safety, Health and Environmental Plan in accordance with DRD STD/SA-SHP on to S&MA for approval prior to starting work if their activities are potentially hazardous to personnel or property. This DRD is available via the MSFC Integrated Document Library or from the Office of Procurement.

2.6.3 Reporting mishaps and other safety data in accordance with MWI 8621.1, "Close Call and Mishap Reporting and Investigation Program."

2.7 Organization Specific Responsibilities

2.7.1 Safety and Mission Assurance (S&MA)

2.7.1.1 Director, S&MA shall:

a. Serve as the Designated Safety Official for MSFC; the designated MSFC Authority Having Jurisdiction (AHJ) for safety (NASA-STD 8719.11, "Safety Standard for Fire Protection,"

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paragraph 102.6(11)).

- b. Implement the MSFC Industrial Safety Program in compliance with applicable Federal, NASA, and MSFC safety policies, regulations, and standards.
- c. Provide independent assessment of safety issues and concerns.
- d. Develop and propagate safety policies, standards, and procedures to implement OSHA and NASA requirements.
- e. Establish and maintain safety standards, instructions, and requirements applicable to MSFC operations and make them available for employees to review.
- f. Provide technical assistance to line and staff managers, including appropriate reference material sources, to assist in accomplishing safety-related goals and objectives.
- g. Measure, analyze, and maintain records of safety trends and general status of the MSFC Industrial Safety Program.
- h. Support SHE Committee.
- i. Consult with employee representatives in the implementation of the MSFC Safety Program (29 CFR 1960.12).
- j. Maintain records and submit reports to OSHA of occupational injuries and illnesses, and post annual summaries (29 CFR 1960, Subpart I).
- k. Post safety and health program information (29 CFR 1960.12).
- l. Perform evaluations of safety programs for MSFC basic organizations and contractors.
- m. Provide overview and surveillance of potentially hazardous activities at the Center.
- n. Receive and resolve reports of unsafe or unhealthful working conditions, and maintain a log of these reports (29 CFR 1960.28).
- o. Provide and implement a plan for industrial safety and fire prevention training for managers, supervisors, employees, employee representatives, and safety and collateral duty safety personnel.
- p. Review safety plans, written hazardous operations procedures, and other safety sensitive documents and drawings.
- q. Perform OSHA and NASA compliance inspections of all Marshall facilities located onsite,

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and all facilities owned or leased by MSFC or occupied by MSFC Civil Service Employees within the Huntsville, AL area. Other sites owned or operated by MSFC or occupied by MSFC Civil Service Employees (i.e., resident offices, Michoud Assembly Facility, etc.) are inspected by that site's local safety authority. S&MA shall assure that equivalent inspections are performed at these other sites by reviewing the annual inspection reports. This includes construction sites.

r. Ensure facility safety tasks are performed at each phase of the facility life cycle, including concept development, design, procurement, construction, activation, operation, and disposal. NASA STD-8719.7 shall be utilized as direction for implementing a facility safety program to meet the requirements of NPR 8715.3.

s. Ensure compliance with applicable safety policies, regulations, and standards

2.7.2 Occupational Medicine and Environmental Health Services shall:

2.7.2.1 Implement the Occupational Medicine and Environmental Health Services Program per MPR 1810.1, "MSFC Occupational Medicine," and MPD 1840.1, "MSFC Environmental Health Program."

2.7.2.2 Ensure compliance with applicable health policies, regulations, and standards.

2.7.3 Environmental Engineering and Management Office shall:

2.7.3.1 Implement the MSFC Environmental Program per MPR 8500.1, "MSFC Environmental Management Program."

2.7.3.2 Ensure compliance with applicable environmental policies, regulations, and standards.

2.7.4 Facilities Management Office shall:

2.7.4.1 Ensure that facilities are designed, constructed, operated, and maintained in accordance with the applicable documents, National standards, including ANSI, NFPA, and international standards as applicable. Where conflicting requirements exist, the most stringent shall be used.

2.7.4.2 If needed, obtain waivers/variances to code requirement in accordance with this document.

2.7.4.3 Ensure that construction work is performed in accordance with OSHA, 29 CFR 1926.

2.7.4.4 Ensure that facilities are maintained in accordance with the applicable codes and standards and the requirements of this document.

2.7.5 Office of Equal Opportunity shall assist supervisors and the Industrial Safety Department

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in identifying personnel that have special safety and health needs due to a physical disability.

2.8 SHE Committee responsibilities are listed in the Committee's Charter, MPD 1150.1, MC-12.

2.9 Area Manager and Building Manager responsibilities are listed in MWI 8715.5, "Area/Building Manager Program."

2.10 Contractors and Other Non-Civil Service Personnel are considered part of the MSFC Team and play a critical role in the MSFC SHE Program. At a minimum, they shall follow the same safety rules and regulations as MSFC civil service employees as described in Appendix B.

2.10.1 Contractor management and employee responsibilities shall be similar to the civil service team responsibilities above, and documented in the contractor's Safety and Health Plan approved by MSFC. Their companies may impose additional rules.

3. PROCEDURE

The MSFC SHE Program has five Core Program Requirements (CPRs) (see Appendix D). These CPRs are the basis of our SHE Program as outlined below:

3.1 CPR 1 - Management Leadership and Employee Involvement

3.1.1 Management Commitment and Leadership

MSFC is committed to establishing a safety management system that effectively implements the four major elements of the NASA Safety Manual – Management Commitment and Employee Involvement, Worksite Hazard Analysis, Hazard Prevention and Control, and Safety and Health Training.

3.1.1.1 SHE Policy

- a. Safety: MSFC strives to prevent human injury and ensure the safety of all operations and products leading to mission success.
- b. Health: MSFC strives to prevent occupational illnesses and promote and maintain the physical and mental well being of its employees to help ensure mission success
- c. Environmental: Enabling Marshall's mission through environmental compliance and stewardship.

3.1.1.2 Vision and Goals

- a. Center Safety and Health Vision:

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- (1) Zero work related lost-time injuries or illnesses
- (2) No OSHA-recordable safety or health violations
- (3) No safety-related property damage
- (4) No public injuries or illnesses

b. Center Environmental Vision:

- (1) Environmental awareness and accountability throughout MSFC
- (2) Innovative attitude that achieves compliance and beyond
- (3) Sustainable development and operations in Center programs
- (4) No significant regulatory, restoration, or pollution prevention issues or risk concerns

c. Center SHE Goals: The Center's SHE goals shall be documented in the annual SHE Program Plan.

d. Sub-organization Goals: Each directorate/office shall strive to help the Center fulfill this policy, plus as needed for individual situations, establish additional internal SHE goals for its organization.

3.1.1.3 This MPR and referenced applicable documents establish the MSFC SHE management system. Approval of this document signifies management's commitment to safety, health and environmental protection.

3.1.1.4 Managers and supervisors shall be held accountable for meeting the SHE Program responsibilities through implementation of a performance evaluation system. All performance plans shall include a safety element that is reviewed semiannually between employees and their immediate supervisor.

3.1.1.5 Supervisor Involvement in the Safety Program. Supervisors shall play a key role in SHE Program implementation as indicated by the supervisors' safety responsibilities listed in Appendix A. In addition, Section 3.1.8 provides supervisors' requirements for conducting safety meetings and rewarding employees for safety, health, and environmental accomplishments.

3.1.2 Employee Involvement in the SHE Program. Employee participation is another key ingredient in MSFC's SHE Program as indicated by the employee responsibilities listed in Appendix B. Each MSFC employee is encouraged to actively participate in the Center's SHE Program in at least three meaningful, constructive ways. Avenues for employee involvement

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include membership on appropriate SHE Committees or teams (e.g., Marshall Safety Action Team (MSAT), participating in SHE audit, supervisor safety visit, mishap investigation and Job Hazard Analysis (JHA)); use of the suggestion program; building manager or assistant; and, providing safety meeting presentations, SHE training, or personal or team safety initiatives.

3.1.3 Contractors and other non-NASA personnel Working Onsite. All personnel onsite shall be provided with levels of safety and health protection equivalent to those described in this document. SHE Plans or Work Agreements for these personnel shall comply with Data Requirements Documents (DRDs) STD/SA-SHEWA or STD/SA-SHP as appropriate.

3.1.3.1 All personnel shall follow the SHE rules established by this document.

3.1.3.2 MSFC's contractor oversight and management system is described in MWI 8715.9, "Occupational Safety Requirements for MSFC Contractors."

3.1.3.3 All onsite personnel are encouraged to participate in the Contractor Safety Forum, the SHE Committee and the SHE Subcommittees.

3.1.4 Area/Building Manager Program. The Area/Building Manager Program functions to maintain and improve safety, health, and the environment throughout the Center. The Area/Building Manager Program is described in MWI 8715.5, "Area/Building Manager Program."

3.1.5 Authority and Resources. Authority and resources shall be provided by responsible managers to abate hazardous conditions, or to implement interim controls when hazards cannot be corrected in a reasonable time.

3.1.6 Professional Safety and Health Staff. S&MA and Center Operations shall include safety and health professionals who provide services to all Center employees as needed. Contractor organizations can also include professional safety and health staff members, where required by contract or MSFC-approved Safety and Health Plan.

3.1.7 Accountability for Safety. All MSFC civil service managers, supervisors, and employees shall be accountable for MSFC safety. The degree and specific areas are addressed in MSFC Form 4282, "NASA Employee Performance Communication System (EPCS)," MSFC Form 2938, "Position Description Amendment," and in the responsibility section of this Directive.

3.1.7.1 Contractors shall implement a similar accountability process as defined in their MSFC approved Safety and Health Plan.

3.1.8 Safety Meetings. Supervisors at all levels shall:

3.1.8.1 Conduct and document monthly safety meetings with those employees that report directly to them. The safety meeting shall address the required SHE focus topics listed in the

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Supervisor Safety Web Page (SSWP), if any, and can be incorporated into a regular staff meeting, or be combined with a manager's or other supervisor's meeting. In cases where employees are assigned in an organization remote from their official supervisor, the employees can attend the equivalent safety meetings of that remote organization.

3.1.8.2 Include in the meeting as applicable:

- a. Discussion of results of SHE inspection findings and necessary corrective actions.
- b. Discussion of recent mishaps, including close calls and corrective actions.
- c. Discussion of current safety issues and concerns, including subjects identified at other levels of the organization. Discussion of any assigned SHE program corrective actions.
- d. Presentation of SHE topics relevant to the work or home, including as a minimum any required topics listed on the Supervisor Safety Web Page (SSWP).
- e. Recent safety bulletins or other information posted on SHE Web page.
- f. Specific SHE Training required for work area(s) or process(es).

3.1.8.3 Assure record of the safety meeting is posted on the SSWP.

3.1.9 Safety Awards.

3.1.9.1 Employee and Employee Team Awards. MSFC is committed to continued improvement of safety in all operations. The presentation of awards is considered appropriate for recognizing outstanding safety-related contributions and is an effective means of encouraging safety excellence. MSFC's Space Flight Safety Awards Program is described on the "MSFC Space Flight Awareness" Web page. Nomination criteria and forms are also listed at this site. Awards are available to recognize individuals/teams who have contributed to MSFC's Safety Program:

Silver Snoopy Award	Honoree Award
Team Award	Leadership Award
Flight Safety Award	Safety Excellence Award

3.1.9.2 Organization Awards. Onsite organizations that meet or exceed the MSFC benchmark for the peak elapsed time or cumulative exposure hours without significant mishap, or make other special achievements, shall be recognized with presentation of an award described in the table below. These awards are presented at the civil service directorate/office level or prime contractor level:

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Achievement	Award
a. Every 1,000,000 Hours or 5 Years (whichever comes first) Without Lost Time or Property Damage Mishap Exceeding \$25,000	Plaque Presented by Center Director at Marshall Team Meeting
b. 5,000,000 Hours or 10 Years (whichever comes first) Without Lost Time or Property Damage Mishap Exceeding \$25,000	Plaque Presented by Center Director at Special Ceremony for All Organization Employees. Memento for each employee.
c. 10,000,000 Hours or 20 Years (whichever comes first) Without Lost Time or Property Damage Mishap Exceeding \$25,000	Trophy Presented by NASA Administrator (if possible) or Center Director at Special Ceremony for All Organization Employees. Memento for each employee.
d. Prime Contractor with a verified Annual Average Self-Evaluation Score of 36 or Higher and LTIR at Least 50% less than National SIC Average	Plaque Presentation by Center Director at Marshall Team Meeting

3.1.10 SHE Program Annual Evaluation.

3.1.10.1 Sub-organization Self-Assessments. Each organization shall conduct an annual self-assessment of their SHE Program. The self-assessment shall at a minimum include all supervisors completing the S&MA administered Self-Assessment Checklists posted on the SSWP, and if applicable updating the Inventory of Hazardous Operations (IHOPS) database and the associated hazardous operations checklist.

a. Each organization shall establish corrective action plans for issues identified in their respective organization.

b. S&MA shall assure that corrective actions for generic cross-center issues are included in the Annual SHE Program Improvement Plan.

3.1.10.2 Each year S&MA shall conduct an employee survey to obtain feedback on the effectiveness and root level understanding of the SHE Program. The NASA-wide Performance Evaluation Profile (PEP) survey can be used for this purpose.

a. Individual organizations shall participate in the survey and establish corrective action plans for issues identified in their specific organization. These plans shall as a minimum address the items in the “get well plan” developed by the PEP system, and submit these plans to S&MA within 6 weeks of receiving the survey results.

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b. S&MA shall include corrective actions for generic cross-center issues in the Annual SHE Program Improvement Plan.

3.1.10.3 S&MA shall conduct audits of SHE programs as required to assure compliance with this document. To reduce operational impact, when possible, the audits shall be conducted in conjunction with the Marshall Management System internal audits.

3.1.10.4 Annual SHE Program Assessment and Report. Each year with the support of the Office of Center Operations, the Office of Human Capital, and SHE Committees, S&MA shall assure the MSFC SHE Program is evaluated and the evaluation documented in a written report.

a. This report shall encompass a critical review and assessment of the effectiveness of each element and sub-element of the SHE Program.

b. The report shall document significant accomplishments and/or areas for improvement by individual element, and the status of, and action taken for, the previous year's Improvement Plan's targets.

c. The report shall address any Centerwide issues identified in sub-organization self-assessments, employee surveys, S&MA audits, and external assessments of the MSFC SHE program conducted during the year.

d. S&MA, Office of Human Capital, and the Office of Center Operations shall approve and sign the report.

e. S&MA shall assure the approved report is presented to the SHE Committee and to Center management at the Integrated Management Systems Board (IMSB) no later than their regular March meeting of the following year.

3.1.10.5 Annual SHE Program Plan. Each year with the support of Center Operations, Office of Human Capital, and the SHE Committee, S&MA shall prepare a SHE Program Plan for the coming year. The Plan shall:

a. Address the current status of each element and sub-element of the SHE program.

b. Include all findings from SHE assessments conducted during the preceding year (i.e., annual SHE Program assessment, sub-organization self-assessment generic issues, external assessments, employee survey generic issues, etc.) and all open findings not closed in the previous years Annual SHE Program Plan.

c. List by element the actions for correction of any findings and/or for improvement of the SHE Program along with the assignee and the target completion date for each.

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d. Be presented for approval to the SHE Committee and Center Management at the IMSB no later than the regular March meeting.

e. Be approved and signed by the Center Director.

3.1.11 Safety Variance Process. To seek a deviation to or waiver of NASA, Federal, or Industry requirement, the procedures in NPR 8715.3, “NASA Safety Manual,” Chapter 1.19, and Appendix G of this document, shall be followed.

3.1.11.1 Approved variances from MSFC SHE-related directives (MPDs, MPRs, and MWIs) shall be requested using the process defined in Appendix G.

3.1.11.2 Operations shall be halted until the deviation/waiver is approved, or the problem is corrected and regulatory compliance is achieved.

3.2 CPR 2 - System and Worksite Analysis

3.2.1 Safety Assessment. Each organization shall assure that safety assessments for facilities, equipment, operations, processes, tasks, and jobs at MSFC are performed in accordance with MWI 8715.15, “Ground Operations Safety assessment and Risk Mitigation Program.”

3.2.2 Routine Self-Inspections. Supervisors and managers, area and building managers, and safety and health professionals shall conduct regular safety and health inspections.

3.2.2.1 Supervisor’s and Manager’s Safety Visits. Supervisors and managers shall conduct, document, and report safety visits in accordance with MWI 8715.16, “Supervisor Safety Visits.”

3.2.2.2 Area and Building Manager Inspections. Area and Building Managers or their designated alternates shall inspect the common areas of assigned facilities and grounds at least once monthly and initiate appropriate corrective action for potentially unsafe conditions and actions.

a. Inspection findings shall be documented and tracked to closure using the online SHEtrak database application.

3.2.2.3 Professional Safety Inspections

a. New, refurbished, or leased facilities shall be inspected by S&MA prior to NASA employee occupancy. All safety issues shall be documented and satisfactorily resolved prior to occupancy.

b. For leased facilities, a safety inspection shall be conducted prior to signing a lease agreement.

c. All safety issues shall be documented and satisfactorily resolved prior to signing lease agreements.

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d. S&MA shall conduct annual comprehensive safety inspection of all MSFC facilities, including those in an inactive status; semi-annual inspections of all hazardous facilities and operations; and, weekly construction site safety inspections; in accordance with 29 CFR 1960.26 and NPR 8715.1 “NASA Safety and Health Handbook Occupational Safety and Health Programs.”

e. Inspections shall be performed by qualified inspectors, as defined in 29 CFR 1960.2 and NPR 8715.1, “NASA Safety and Health Handbook Occupational Safety and Health Programs,” Section 4.2.

f. Findings shall be documented and tracked to closure in the online SHEtrak database.

g. Inspection records shall be maintained for a minimum of 5 years, in accordance with 29 CFR 1960.73.

3.2.2.4 When an “Imminent Danger” condition is identified, the responsible organization(s) shall undertake immediate abatement or cease operations and withdraw exposed personnel to a safe location.

3.2.2.5 Upon receipt of any unsafe or unhealthful working condition report, building managers or their assistants shall immediately, ensure a notice is posted at or near each place where the condition exists or existed, until the condition is abated or for 3 working days, whichever is later (NPR 8715.3, “NASA Safety Manual”).

3.2.2.6 If immediate correction of unsafe conditions is not feasible, interim controls shall be put in place. The installation of signs, safety tags and/or barricades as described in MWI 8715.3, Hazard Warning Signs and Barricades” are examples of interim controls.

3.2.2.7 To close a safety finding, the building manager or responsible organization shall enter a short description of the completed corrective action in SHEtrak and close the finding. Closure requires the unsafe condition to be corrected; submitting a work order is not considered a closure.

3.2.2.8 S&MA shall review the closure.

3.2.2.9 If correction is not satisfactory, S&MA shall reopen the finding and notify the affected parties.

3.2.2.10 If more than 30 days is required to abate the identified condition, the building manager or responsible organization shall ensure an abatement plan is submitted via SHEtrak to S&MA within 30 days following notification of the safety finding.

3.2.2.11 S&MA shall review safety finding closure status and present closure status charts to the SHE

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Committee and the employee representatives (NPR 8715.1, “NASA Safety and Health Handbook Occupational Safety and Health Programs”).

3.2.3 Unsafe Condition Reporting System for Employees. The Center’s Safety Concerns Reporting System (SCRS) is described in MWI 8715.13, “Safety Concerns Reporting System (SCRS).” The reporting precedence for reporting an unsafe condition is described in Appendix H.

3.2.4 Industrial Hygiene (IH) Program. MSFC’s IH program is documented in MPD 1840.1, “MSFC Environmental Health Program.”

3.2.5 Mishaps/Close Calls Investigated and Hazards Corrected. All mishaps and close calls shall be reported, investigated, and hazards addressed by appropriate corrective and/or preventive action, as described in MWI 8621.1, “Close Call and Mishap Reporting and Investigation Program.” Aircraft accidents follow the procedures in MPR 7900.1, “Aviation Accident Plan.” Government-owned or leased motor vehicle accidents are investigated per MPR 6700.1, “MSFC Vehicle and Motor Pool Operations,” instructions.

3.2.6 S&MA shall inform Center workers of recent mishap and close call descriptions and causes by posting information on the SHE Web page and/or distributing intranet e-mail messages.

3.2.6.1 If the mishap or close call identified lessons learned for the general population, S&MA shall issue Centerwide Bulletins.

3.2.6.2 S&MA shall assure that responsible organizations present type C (reference MWI 8621.1, “Close Call and Mishap Reporting and Investigation Program”) or worse mishap and significant close-call reports to the SHE Committee and the MTM.

3.2.6.3 The responsible organization’s report shall include a description of the incident, the causes identified, and the proposed corrective action(s).

3.2.6.4 Employees can contact S&MA to obtain additional information concerning specific recurrence control measures implemented.

3.2.7 Injury, Illness, and Close Call Trend Analysis. S&MA shall analyze injury, illness, and close call data, and identify any significant trends in accident experience.

3.2.7.1 Trend analysis data shall be presented to the SHE Committee and Center management at the MTM regularly, and posted on the SHE Web site.

3.2.7.2 Trend analysis results shall be used to guide planning of accident prevention strategies and programs.

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3.2.7.3 S&MA shall post the OSHA summary reports at key locations throughout the Center and on the SHE Web page.

3.3 CPR 3 - Hazard Prevention and Control

3.3.1 Professional Resources. MSFC shall maintain a staff of onsite safety and health professionals and licensed health care professionals with support from professionals located at NASA Headquarters and other NASA sites.

3.3.2 Hazard Elimination and Control Methods. The type of hazards employees are exposed to, the severity of the hazard, and the risk the hazards pose to employees and property shall be considered in determining methods of hazard prevention, elimination, and control. The requirements for elimination and control are documented in MWI 8715.15, "Ground Operations Safety Assessment and Risk Mitigation Program."

3.3.2.1 Hazard Mitigation Hierarchy. Identified hazards shall be mitigated in the following order of precedence:

- a. Eliminate the hazard.
- b. Design for minimum hazard.
- c. Incorporate safety devices.
- d. Provide caution and warning devices.
- e. Develop administrative procedures and training.

3.3.2.2 Administrative Controls. Center instructions that address SHE administrative controls include:

- a. Appendix Z, "Maximum Work Hour Guidelines."
- b. MPD 1800.1, "MSFC Smoking Policy."

3.3.2.3 Work Practices. Center SHE work practices instructions include:

- a. Appendix E, "MSFC Sitewide Safety Rules." These rules represent a minimum set of safety rules for the Center and apply to all personnel on MSFC property. Supervisors shall add safety rules specific to hazardous operations for which they are responsible.
- b. Appendix F, "Minimum Housekeeping Requirements." Supervisors shall define and post in their area of responsibility any additional specific housekeeping requirements for their area of responsibility.

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c. Appendix I, “Requirements for Use of Cargo Containers on MSFC Property.”

d. NPR 8831.2, “Facilities Maintenance Management.”

3.3.3 Hazard Control Programs.

3.3.3.1 Center instructions that address hazard controls include:

- a. MWI 8715.1, “Electrical Safety”
- b. MWI 8715.2, “Lockout/Tagout Program”
- c. MWI 8715.3, “Hazard Warning Signs and Barricades”
- d. MWI 8715.4, “Personal Protective Equipment (PPE)”
- e. MWI 8715.1, “Electrical Safety”
- f. MWI 8715.10, “Explosives, Propellants, and Pyrotechnics Program”
- g. MWI 6430.1, “Lifting Equipment and Operations”
- h. MPR 1840.2, “MSFC Hazard Communications Program”
- i. MPD 1840.3, “MSFC Respiratory Protection Program”
- j. MPD 1840.1, “MSFC Environmental Health Program”
- k. MPR 1810.1, “MSFC Occupational Medicine”
- l. MPR 1800.1, “Bloodborne Pathogens”
- m. MPD 1840.2, “MSFC Hearing Conservation Program”
- n. MPD 1860.1, “Laser Safety”
- o. MPD 1860.2, “Radiation Safety Program”
- p. MWI 3410.1, “Personnel Certification Program”

3.3.3.2 Managers of hazardous facilities/operations shall establish any additional site or job specific controls necessary to assure personnel, visitor, and property safety.

3.3.4 Occupational Health Care Program

3.3.4.1 The occupational health care program is described in MPR 1810.1, “MSFC Occupational Medicine.”

3.3.4.2 Emergency medical services are provided by onsite ambulance service during normal working hours. After normal working hours the Redstone Arsenal Fire Department serves as the first responders until an offsite ambulance arrives. For offsite facilities in the Huntsville area, emergency medical services are available by calling 911. In addition, employees are trained in cardiopulmonary resuscitation (CPR) on a voluntary basis. Automated External Defibrillators (AEDs) are also available in some strategically located areas.

3.3.5 Facility and Equipment Maintenance. Facility and equipment maintenance shall be conducted to help prevent mishap.

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3.3.5.1 Critical maintenance items shall be identified by the facility and equipment owners and tracked to ensure maintenance schedules are maintained.

3.3.5.2 The maintenance program shall comply with requirements of NPR 8831.2, “Facilities Maintenance Management.”

3.3.6 Disciplinary System. Employees can be disciplined for violations of the safety and health policies, procedure, and rules. For Civil Service employees, the disciplinary system is described in DG-03, “NASA Desk Guide for Table of Disciplinary Offences and Penalties.” A current copy of this document is maintained on the SHE Web page for employee awareness. For Contractor employees, disciplinary systems are described in their respective company policies.

3.3.7 Emergency Preparedness and Response

3.3.7.1 The MSFC emergency program is described in MPD 1040.3, “MSFC Emergency Program.”

3.3.7.2 The MSFC fire evacuation drill requirements are described in MWI 8715.11, “Fire Safety Program.”

3.3.7.3 Emergency/Evacuation plans for specific buildings are posted in common areas on each floor of the respective buildings.

3.3.7.4 Managers of hazardous facilities/operations shall ensure emergency plans are prepared for these facilities/operations and ensure that they are:

- a. Maintained.
- b. Provided (a copy) to the MSFC Emergency Operations Center.
- c. Discussed with the affected personnel.
- d. Exercised periodically.

3.4 **CPR 4 - Safety and Health Training**

MSFC’s Safety and Health Program is dependent on employees and supervisors who have the basic skills necessary to identify and control hazards and the specialized skills to perform their jobs in a safe manner. Safety training is outlined in MPR 3410.1, “Training,” and below, while safety certification requirements are provided in MWI 3410.1, “Personnel Certification Program.” S&MA and the Learning and Organizational Development Office (LODO) coordinate the MSFC Safety Training Program. Safety training shall be mandatory for all MSFC employees, supervisors, and managers. The type of courses required is dependent on the employee’s assigned duties.

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3.4.1 Employee

3.4.1.1 At a minimum, the supervisor shall ensure each employee is trained about:

- a. Safety rules applicable to the worksite.
- b. How to recognize and report a hazard in the worksite.
- c. Center and worksite-specific emergency procedures.
- d. How to recognize signs and symptoms of workplace-related illnesses, and to obtain medical services (e.g., Building 4249, MSFC Medical Center).
- e. Specific job-related hazards and safety procedures. If PPE is required, this shall include why it is required, its limitations, how to use it, and maintenance.
- f. Employees rights under OSHA 29 CFR 1960.

3.4.1.2 Training records shall be maintained in accordance with MPR 3410.1, "Training."

3.4.1.3 Specialized safety training and certification is addressed in MWI 3410.1, "Personnel Certification Program."

3.4.2 Supervisors and Managers Supervisors and managers shall complete SHE training as required by MPR 3410.1, "Training."

3.4.3 Building Managers and Assistant Building Managers

3.4.3.1 Building managers and assistant building managers shall attend "The Building Manager Training Program."

3.4.3.2 Building managers/assistant building managers shall attend periodic Building Manager Information meetings conducted by S&MA.

3.4.4 Training Records shall be maintained in accordance with MPR 3410.1, "Training."

3.5 CPR 5 - Environmental Compliance

3.5.1 MSFC's environmental management policy and program addressed in MPD 8500.1, "MSFC Environmental Management Policy," and MPR 8500.1, "MSFC Environmental Management Program."

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3.5.2 MSFC's procedures for storm water pollution prevention are addressed in MWI 8550.2, "Storm Water Management" and MWI 8550.3, "Wastewater Compliance."

3.5.3 MSFC's clean air procedures are addressed in MWI 8550.4, "Air Emissions Compliance."

3.5.4 MSFC's hazardous waste compliance procedures are addressed in MWI 8550.1, "Waste Management."

3.5.5 MSFC's hazardous materials compliance procedures are addressed in MWI 8550.5, Hazardous Materials Management."

3.5.6 MSFC energy management procedures are addressed in MPD 8570.1, "MSFC Energy Management Program."

4. RECORDS

The records listed below are specific to this document. Other records associated with the MSFC Safety Program are identified in the applicable Center directives.

4.1 Annual SHE Program Plan shall be destroyed when 10 years old or when superseded or obsolete, whichever is sooner in accordance with NRRS 1/125/A [1740].

4.2 Annual SHE Program Report shall be retained for 5 years by S&MA in accordance with NRRS 1/72/E [1410], then destroyed.

4.3 Directorate/Office Safety Goals shall be posted in a central location and maintained by each directorate/office in accordance with NRRS 1/72/E [1410] until updated.

4.4 Housekeeping Requirements shall be posted in a central location and maintained by each department in accordance with NRRS 1/72/E [1410] until updated.

4.5 Safety Inspection records and related Hazard Abatement Plans shall be maintained by S&MA in the SHEtrak database until related property is disposed of by NASA then retired to the Federal Record Center (FRC) and destroyed 5 years after disposal in accordance with NRRS 1/117 A [1700].

4.6 SSWP Safety Meeting Minutes shall be maintained by S&MA in accordance with GRS 18/9, destroy when 3 years old. When SSWP is not utilized, hardcopy records shall be maintained by each supervisor for 3 years.

4.7 Monthly Safety Meeting Summary Report – shall be maintained by S&MA in accordance with GRS 18/9, destroy when 3 years old.

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4.8 S&MA Safety Report (the injury, illness, and close call trends) shall be maintained in the SHE Committee minutes in accordance with GRS 18/9, destroy when 3 years old.

4.9 Safety Program Self-Assessment Report and Safety Trends shall be maintained by S&MA in accordance with GRS 18/9, destroy when 3 years old.

4.10 Safety Deviations/Waivers shall be maintained by S&MA in accordance with NRRS 1/72/E [1410] and retained for duration of the variance plus 5 years, then destroyed.

4.11 Inventory of Hazardous/Potentially Hazardous Operations at MSFC shall be maintained by S&MA in accordance with NRRS 1/117.5 [1700] in the IHOPS database as permanent pending retention approval.

4.12 Safety Concerns Reporting Systems (SCRS) records. See MWI 8715.13, "Safety Concerns Reporting System (SCRS)."

4.13 Injury, Illness, Close Call Trend Analysis Reports shall be posted in the SHE Committee minutes with exception of the annual OSHA Form 300A submittal, which is posted on the main bulletin boards in Buildings 4200 and 4203 and on the SHE Web page; and retained in IRIS accordance with GRS 18/9, destroy when 3 years old.

4.14 SHE Committee Meeting Minutes shall be posted on the Safety Web page and maintained in accordance with GRS 18/9, destroy when 3 years old.

4.15 Record custodians shall maintain records plans (MSFC Form 2441) in accordance with requirements of MPR 1440.2, "MSFC Records Management Program."

5. FLOW DIAGRAM

None

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APPENDIX A SUPERVISOR GENERAL SHE RESPONSIBILITIES

Supervisors shall:

1. Promote safety, health, and environmental stewardship by setting a positive example.
2. Communicate SHE goals established by the directorate/office directors.
3. Prepare and post housekeeping rules. (Minimum requirements are provided in Appendix F.)
4. Conduct monthly SHE meetings with employees (direct reports) in accordance with this document.
5. Look for housekeeping problems as part of their daily routine.
6. Conduct safety visits of assigned areas of responsibility in accordance with MWI 8715.16.
7. Evaluate employees' safety performance using the performance appraisal system.
8. Be members of, or support, MSFC's SHE Committees.
9. Assure JHAs and other safety assessments are performed in accordance with MWI 8715.15.
10. Inform employees of the specific hazards associated with their workplace and duties, location of nearest medical treatment facility, procedure for obtaining treatment, method for reporting occupational injuries or illnesses, and their responsibilities and rights under OSHA law (29 CFR 1960.59 for civil service or 29 CFR 1903.2 (a)(1) for contractors).
11. Ensure MSFC Form 596, "Emergency Telephone Numbers," or equivalent is posted on telephones in their area.
12. Take appropriate action to protect employees in "Imminent Danger" situations.
13. Stop operation if an unsafe act or condition exists, report it to management, and ensure subordinates are aware of their responsibility and authority to do the same.
14. Report and investigate mishaps, including close calls, in accordance with MWI 8621.1.
15. Ensure personnel are trained to perform their jobs in a safe and healthful manner and are certified where required, before assignment to potentially hazardous work tasks, in accordance with MPR 3410.1.
16. Ensure all personnel (including visitors, contractors, and researchers) within work areas under their supervision comply with the requirements of the MSFC SHE Program.
17. Perform annual self-assessment of SHE Program per this document.

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APPENDIX B EMPLOYEE GENERAL SHE RESPONSIBILITIES

Employees shall:

1. Adhere to the safety, health, and environmental rules, plans and procedures.
 2. Avoid unsafe acts.
 3. Stop an operation if an unsafe act or condition exists and report it to the supervisor, the building manager, or the safety designee listed on the "Occupational Safety and Health Protection for NASA Employees" poster.
- NOTE: Executive Order 12196 and MSFC management guarantee employees' freedom from restraint, interference, coercion, discrimination, or reprisal for exercising their rights in participating in the activities of the Agency's occupational safety and health programs.
4. Report all safety and health problems, close calls, and mishaps to their supervisor. (Reference Appendix H.)
 5. Report all fires immediately.
 6. Attend and participate in safety meetings and SHE training and awareness activities.
 7. Correct imminent danger hazards immediately or secure area and mark with hazard warnings to prevent injury or damage per MWI 8715.3.
 8. Support the SHE Committees. (Active participation in the SHE Committee and/or Subcommittees is encouraged.)
 9. Become familiar with emergency procedures and follow them when necessary.
 10. Try to participate in the SHE Program in at least three meaningful ways (Paragraph 3.1.2).
 11. Obtain and post a portable appliance permit, MSFC Form 3798, for privately owned, electrically powered appliances with heating elements (MWI 8715.11).
 12. Be familiar with Material Safety Data Sheets (MSDS) for all hazardous chemicals in their work area.
 13. Wear Personal Protective Equipment (PPE) when required.

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APPENDIX C

MSFC SHE PROGRAM CORE PROGRAM REQUIREMENTS (CPR)

CPR 1 - Management Leadership and Employee Involvement

1. Safety and Health Plan (Policy, Goals, & Objectives)
2. Planning
3. Written Programs
4. Management Leadership (Communication, Behavior, Leadership, Responsibility, Authority, Resources, Accountability)
5. Contractor Selection and Oversight
6. Program Evaluation
7. Employee Encouragement
8. Employee Involvement
9. Employee Committees

CPR 2 - System and Worksite Analysis

1. Pre-Use Analysis
2. Hazard Baseline and Industrial Health
3. Hazard Analysis
4. Inspections
5. Employee Concerns
6. Accident/Incident Investigation
7. Trend Analysis

CPR 3 - Hazard Prevention and Control

1. Hazard Controls (Procedures, Discipline, PPE, Engineering)
2. Tracking
3. Preventive Maintenance
4. Medical Program
5. Emergency Preparation

CPR 4 - Safety and Health Training

1. Worker, Contractor, Committees
2. Supervisors
3. Managers
4. Training Process

CPR 5 - Environmental Compliance

1. Procure green chemicals through established MSFC procurement processes (Executive Order 13101).
2. Reduce, reuse, or recycle hazardous and toxic substances (Pollution Prevention Act).
3. Minimize storm water pollution from entering the environment by storing chemicals inside, implementing engineering controls, inspections, etc.
4. Ensure that equipment and processes are included in the Clean Air permit and that required inspections, recordkeeping, and tests are performed.
5. Dispose of waste (solid and/or liquid) in accordance with MSFC procedures and applicable Federal and State law.

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APPENDIX D MSFC SITEWIDE SAFETY RULES

Every Employee:

1. Shall move to a secure area immediately after being notified (emergency warning system, fire alarm, or other alarm system).
2. Shall remove loose objects or other tripping hazards from floors immediately. Clean liquid spills from floor immediately or highlight by safety cones or signs.
3. Shall keep fire exits and means of egress free of boxes, file cabinets, and excess furniture.
4. Shall close desk or file drawers when not in use and not open more than one drawer of a file cabinet at a time.
5. Shall use only approved ladders, scaffolds, or step stands to reach items stored overhead or out of reach.
6. Shall, when going up or down stairs, take one step at a time and hold the handrail. In situations where there is 2-way traffic, bear to the right side of the stairway.
7. Shall use proper manual lifting techniques and limit lifts to personal physical capabilities, but in no case more than 40 pounds. Seek assistance from another employee when the item is greater than 40 pounds or too bulky to handle (do not exceed 40 pounds per employee).
8. Shall store hazardous chemicals/materials only in approved cabinets/areas.
10. Shall wear seat belts in all vehicles while at MSFC.
11. Shall not use cell phone while driving on MSFC or anywhere when driving a Government vehicle except in a hand-free arrangement.
12. Shall not leave a vehicle running while unattended.
13. Shall walk on sidewalks and/or marked paths if available.
14. Shall not ride bicycles and motorized scooters on sidewalks or inside buildings. (Exception: electric-powered units used by persons with physical disabilities. The Office of Equal Opportunity shall approve the documented "need" for the electric-powered unit and the Industrial Safety Department shall approve the electric-powered unit.)
15. Shall walk (not run) in buildings, parking lots, or sidewalks. Running is allowed only in designated exercise areas.
16. Shall turn off coffeemakers and heat-producing appliances at the end of the shift.
17. Shall avoid cleaning areas/items contaminated with blood. (Only personnel who have completed the bloodborne pathogens course shall clean areas/items contaminated with blood.)
18. Shall not feed wild animals.
19. Except for special "open" events, employees shall not bring children into the workplace on a routine basis or for extended visits. When children briefly accompany the parent to the workplace, the employee shall be responsible for the safety and conduct of the child.

NOTE: MSFC's fire safety rules are outlined in MWI 8715.11.

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APPENDIX E

MINIMUM HOUSEKEEPING REQUIREMENTS

1. Keep area neat and orderly at all times. Limit materials, tools, and equipment out of normal storage places to those needed for operations.
2. Arrange desks, tables, etc., so that electrical and telephone cords and outlets do not present a tripping hazard.
3. Securely fasten shelves, cabinets, lockers, etc., to the floor or wall if a possibility of overturning exists.
4. Storage of material shall not create a hazard. Bags, containers, bundles, etc., stored in tiers shall be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapsing.
5. No items shall be stored on the top of any free-standing or fixed furniture that is 6 feet or greater in height, unless the top is specifically designed for such purpose.
6. Items stored on the top of any height furniture shall be stacked/arranged so that it does not create a potential hazard to personnel and property.
7. Furniture, equipment, supplies, or other substantial physical objects shall not be stored in required egress corridors and passageways serving six or more people except in lobbies, recessed areas, or other spaces specifically designed for such purpose.
8. In areas protected by automatic sprinklers, storage shall be maintained at least 18 inches below the level of the sprinkler heads.
9. Areas that have cloth rags or paper towels saturated with combustible or flammable liquids shall have a can with a self-closing lid and ventilated bottom (UL or FM approved).
10. Computer rooms and areas that generate a large amount of paper shall be provided with metal cans with self-extinguishing heads.
11. Work areas shall be cleaned up at the end of each workday.
12. Furnace rooms, boiler rooms, or equipment rooms shall not be used for storage.

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APPENDIX F DEVIATION APPROVAL PROCESS MATRIX

Type of Document	Wording	Routing (see Note A)	Approval Level (see Note B)	After Action Reporting and Statusing Requirements
Federal	Policy	Through Program System Safety Mgr. or S&MA Director.; Center Dir.; and NASA HQ/QS in turn	Issuing Federal Agency	Assessed and statused annually with input to OSHA report
State	Policy	Through Program System Safety Mgr. or S&MA Director and Center Dir.	Issuing State Agency	Assessed and statused annually with input to OSHA report
NPD	Policy	Through Program System Safety Mgr. or S&MA Director and Center Dir.	NASA HQ IPO or Enterprise	Assessed and statused annually with input to OSHA report
NPR	Shall	Through Program System Safety Mgr. or S&MA Director	Center Director*	To NASA HQ/QS within 14 days and then assessed and statused annually with input to OSHA report
NPR	Should	Through Program System Safety Mgr. or S&MA Director	Directorate level Facility Mgr. or Program Mgr.	To NASA HQ/QS quarterly and then assessed and statused annually with input to OSHA report
Standard specified in an NPD	Shall	Through Program System Safety Mgr. or S&MA Director and Center Dir.	NASA HQ IPO or Enterprise	Assessed and statused annually with input for OSHA report
Standard specified in an NPR	Shall	Through Program System Safety Mgr. or S&MA Director	Center Director*	To NASA HQ/QS within 14 days and then assessed and statused annually with input to OSHA report
Standard	Should	Through Program System Safety Mgr. or S&MA Director	Program or Facility Manager	Not Required
MPD, MPR & MWI (SHE Documents)	Shall	In accordance with MPR 1410.2.	In accordance with MPR 1410.2.	In accordance with MPR 1410.2.
MPD, MPR & MWI (SHE Documents)	Should		Industrial Safety Dept. Mgr.	Not Required

Note A: The lowest organizational or program level of management having responsibility to implement safety requirements (e.g., facility manager, program systems manager, first line supervisory personnel) normally assess, prepare, and submit a variance request through the appropriate levels of authority to the official with final approval authority.

Note B: Using the requirements of this matrix, the final approval is the responsibility of the listed manager or director who, by their position, has the authority to accept the risk. Variances approved against mandatory ("shall") requirements are valid for up to 5 years. Variances approved against advisory ("should") provisions at the directorate or program level can remain in place as long as annual assessment and reporting is maintained.

**CHECK THE MASTER LIST at <https://repository.msfc.nasa.gov/directives/directives.htm>
VERIFY THAT THIS IS THE CORRECT VERSION BEFORE USE**

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Example: A *variance request* to a requirement stated in an *NPR* (fourth row of matrix) that uses the word *shall* would be routed *through the Center Safety Director* for concurrence and *approved or denied by the Center Director*. A copy would then be *sent to NASA HQ/QS within 14 days* along with the detailed rationale for its approval and other documentation.

*Approval is allowed at this level if the specific requirement is not implementing Federal regulatory policy. In those cases, the Center would forward to NASA HQ/QS for variance request to the applicable Federal agency.

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APPENDIX G HAZARD REPORTING PRECEDENCE

TO REPORT A SUSPECTED UNSAFE CONDITION:

Each employee shall be responsible for reporting unsafe or potentially unsafe conditions in the workplace, or unsafe products the Center produces. Employees are guaranteed freedom from restraint, interference, coercion, discrimination, or reprisal for exercising their rights. Several lines of communication are available. The preferred sequence of reporting safety concerns is:

1. Contact your supervisor/ management.
2. Contact MSFC Safety Hotline 544-HELP, "Safety Option."
3. Submit MSFC Safety Concern(s) Reporting System (SCRS) via mail in pamphlet (local bulletin boards) or the SHE Web page.
4. Contact the Industrial Safety Department Manager 544-0046.
5. Contact the safety designee listed on the "Occupational Safety and Health Protection for NASA Employees" poster (S&MA Director) NASA Safety Reporting System (NSRS)*. Forms are available in common areas of buildings at MSFC and on the SHE Web page.
6. Report safety concerns via OSHA Hotline 1-800-321-OSHA

NOTE: If the condition is not satisfactorily corrected, go to the next step. If none of these reporting steps provides satisfactory correction, the employee may file an appeal or grievance in accordance with NPR 8715.1.

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APPENDIX H

POLICY FOR USE OF CARGO CONTAINERS AT MSFC

H.1 Organizations wishing to purchase cargo containers for use at MSFC shall submit a site sketch/plan of the proposed locations to the Facilities Management Office (FMO) for approval prior to purchase and placement. The FMO shall coordinate with the Industrial Safety Department of Safety and Mission Assurance Directorate on any issue of safety or potential hazards. Upon site location approval by the FMO, the purchasing organization shall ensure that the location is included on the delivery paperwork when the cargo container is processed through MSFC Central Receiving.

Note: For organizations that do not have adequate or acceptable space, the Center has designated a space east of Building 4481 for multiple cargo container placements.

H.2 Grandfather Clause. Existing cargo containers already in use at MSFC shall have until October 2006 to comply with the requirements of this document.

H.3 Logistics Services Office (LSO) shall be notified of cargo container purchases via the purchase/receiving process. During the receiving process, the LSO shall assign a unique NEMS identifier to the cargo container to allow tracking and accountability of each unit. The using organization responsible for the cargo container shall keep Facilities Management Office, Industrial Safety Department, Environmental Health and Management Office, Fire Department, Logistics Services Office, and Security Office aware of each cargo container location and each location change.

H.4 A MSFC label 45 (identifying the cargo containers location, and responsible-users' contact information) and the LSO unique identifier shall be posted on the primary door of each unit. The user's contact information shall be used to contact same if the cargo container is found unlocked or in event of emergency when user is not in the vicinity.

H.5 Only approved (security) locks shall be used to secure these units. Security keys shall be controlled pursuant to the requirements in MPR 1600.1, "MSFC Security Procedural Requirements," Chapter 9, Lock and Key Program.

H.6 To help control varmints/vegetation, and improve esthetics/stability, cargo containers shall be located on pavement or concrete slabs.

Exception: When used for test operations within Test Area, locations other than pavement or concrete slabs may be approved by the FMO after appropriate coordination with the Industrial Safety Department.

H.7 To prevent potential fire exposure and operational blockages, cargo containers shall be located at least 25 feet from permanent buildings unless a closer location is approved by the FMO after appropriate coordination with the Industrial Safety Department and the building

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manager.

H.8 To reduce fire potential and maintain access, multiple cargo containers kept in a single group shall not exceed 1500 sq ft in total floor area. A minimum 10 foot clear space shall be maintained between multiple cargo container groups.

Exception: To support ground maintenance activities, containers not located on a common pavement or concrete slab area shall not be grouped. Each container shall be at least 10 feet apart.

H.9 A clear space of 10 feet shall be maintained in front of the container's doors in all cases.

H.10 Cargo containers shall be used for storage only. Flammable or combustible liquids, and chemicals or equipment with tanks/reservoirs that hold chemicals shall not be stored in these cargo containers. If items with NEMS tracking numbers are stored in these cargo containers, the responsible cargo container user shall maintain a specific inventory of these items and shall notify the LSO of the tagged item's location.

Exception: Cargo Containers within the Test Area may be used for test operations activities if they meet Life Safety Code requirements and the use is approved by the Industrial Safety Department

H.11 Utilities such as water, electricity, and gas shall not be provided to these cargo containers except as approved for test area operations.

H.12 These cargo containers shall be included in the Facilities, Security, Area/Building Manager, supervisor, and SHE organizations inspection processes as appropriate.

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APPENDIX Z MAXIMUM WORK HOUR GUIDELINES

Z.1 Supervisors should use the following guidelines for worker's whose job performance can directly impact the safety of others, the safety of NASA high value property, or mission, and consider them for other workers.

Z.2 Maximum Work Periods:

Z.2.1 12 Consecutive hours (16 hours in an emergency situation)

Z.2.2 60 hours during a workweek (7 day period)

Z.2.3 7 consecutive days without at least 1 full day off

Z.2.4 240 hours during a 4 week period

Z.2.5 2500 hours during a rolling 12-month period